

# Bechtel Nevada

## Overview

### February, 2002



2002

# Agenda

## FMSIC/BRC Annual Conference

- ★ **NTS Operations**
- ★ **FY02 Cost Model Changes**
- ★ **Lessons Learned**
- ★ **Open Discussion**

## **Nevada Test Site Vision**

The Nevada Test Site is a National asset for supporting experimentation, testing, training, and demonstration for defense systems and advanced high-hazard operations. We are the leader for rapidly designing, developing, and implementing the technological support required for experiments and tests of our national defense customers.

## NTS – Unique National Resource

The Nevada Test Site is a massive outdoor laboratory and national experimental center that cannot be duplicated. Larger than the state of Rhode Island, approximately 1,375 square miles, making this one of the largest restricted access areas in the United States. The remote site is surrounded by thousands of additional acres of land withdrawn from the public domain for use as a protected wildlife range and for a military gunnery range, creating an unpopulated land area comprising some 5,470 square miles.



Established as the Atomic Energy Commission's on-continent proving ground, the Nevada Test Site has seen more than four decades of nuclear weapons testing. Since the nuclear weapons testing moratorium in 1992, test site use has diversified into many other programs such as hazardous chemical spill testing, emergency response training, conventional weapons testing, and waste management and environmental technology studies.

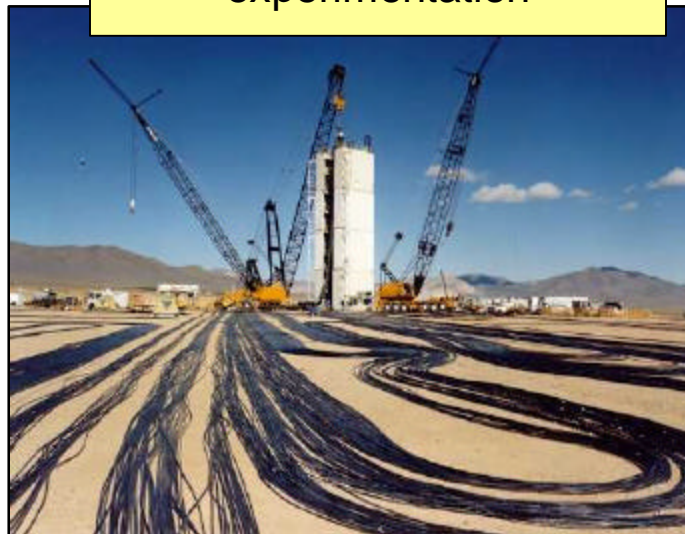
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# Bechtel Nevada



Designs systems and system components for unique experiments

Supports nuclear weapons maintenance, viability, and experimentation



Manages and operates the Nevada Test Site



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Develops specialized sensors for data acquisition and analysis

Performs aerial radiation and environmental surveys of nuclear power sources and mining sites



**Bechtel Nevada**

# Customers

The primary customer is the National Nuclear Security Administration and the 3 weapons labs (Livermore, Los Alamos and Sandia)



## **Other customers include:**

- DOE Non-Proliferation and National Security
- DOE Environmental Management
- DOE Energy Programs
- Dept. of Defense
- Dept. of Justice
- Defense Threat Reduction Agency
- Intelligence Agencies
- NASA
- NRC
- Private Companies

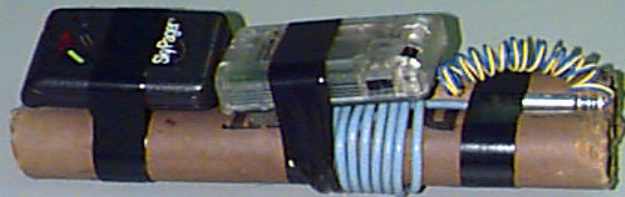
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# The Four Programs

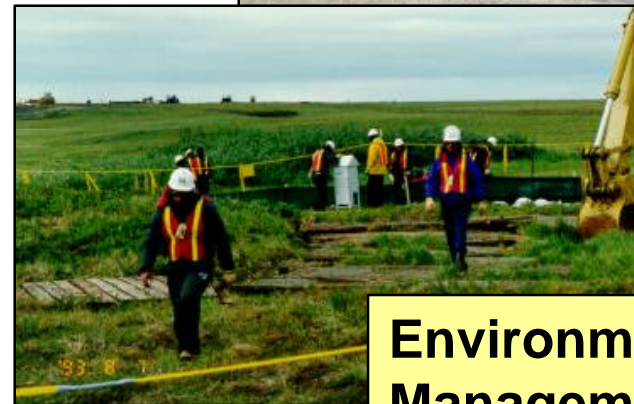
Bechtel Nevada is organized into four Missions to perform work:

## Stockpile Stewardship



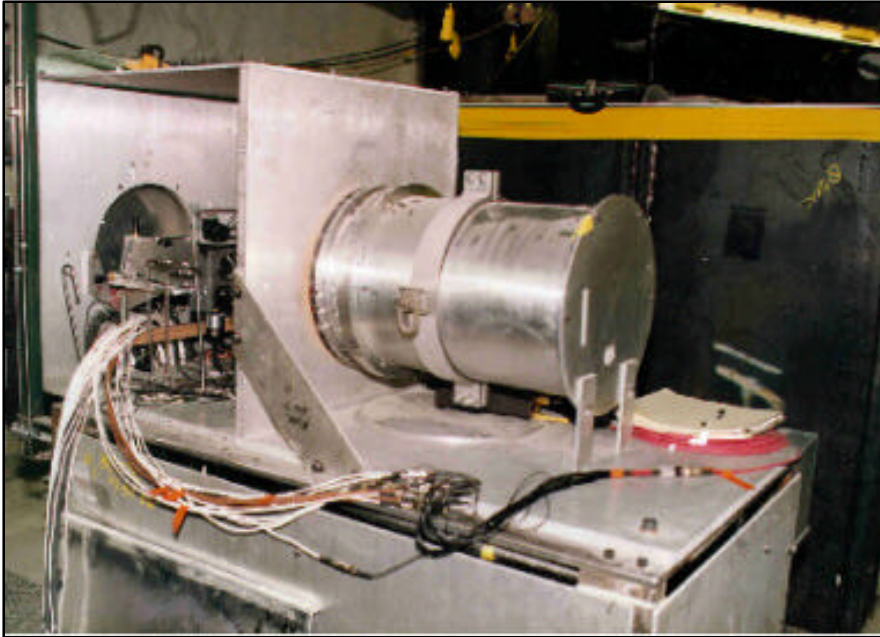
## National Security Response

## Defense and Civil Programs



## Environmental Management

# Stockpile Stewardship



Supports national laboratories  
in the development and  
operation of diagnostic systems,  
target chambers, and stockpile  
stewardship experiments



Maintains the Nevada Test Site for  
defense-related nuclear and national  
security experiments

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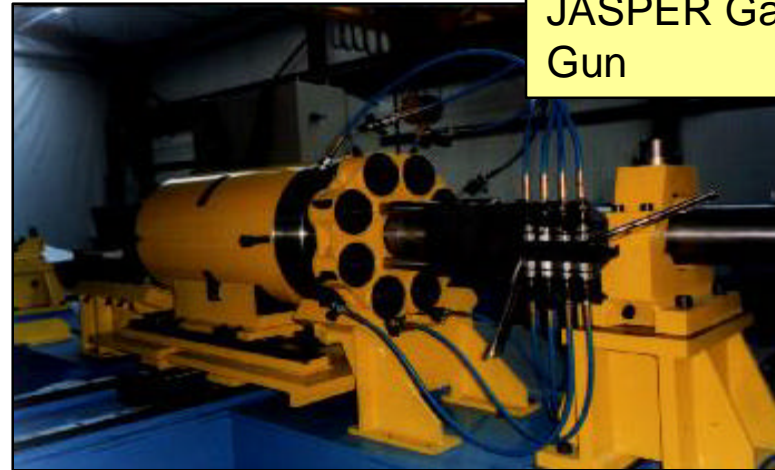


# Stockpile Stewardship

Big Explosives  
Experimental  
Facility



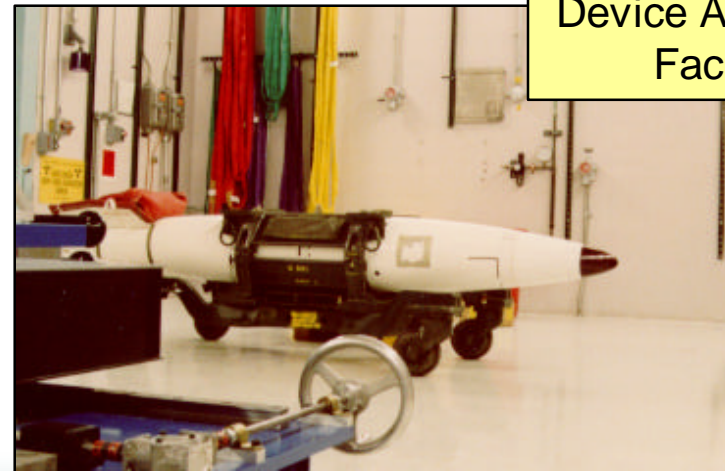
JASPER Gas  
Gun



Atlas



Device Assembly  
Facility

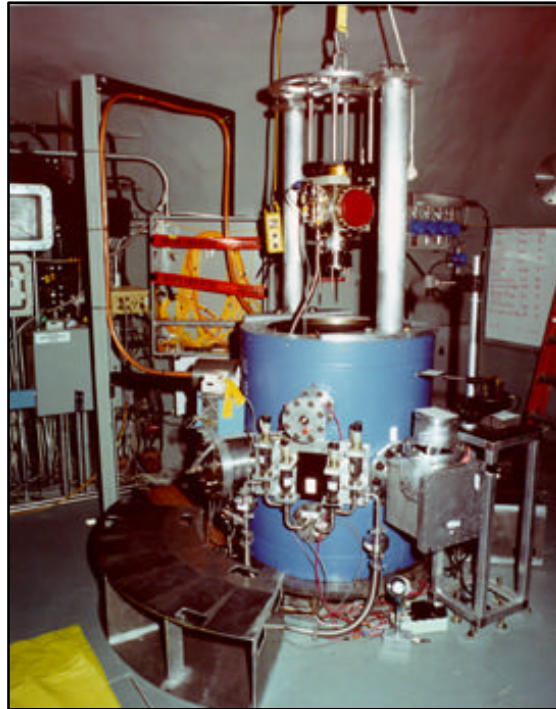


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# Stockpile Stewardship

## Subcritical Experiments

Bechtel Nevada supports subcritical experiments at the Nevada Test Site.



Experiments obtain data which help ensure safety and reliability of the U.S. nuclear stockpile



# National Security Response

Counterterrorism  
and First  
Responder  
Training



Emergency  
response



Terrorism-related  
intelligence

Remote data  
acquisition and  
analysis



# Increased Profile Since 9/11 Attacks

- Nat'l Center for Combating Terrorism
- Security Staff on Alert
- CBRN End-to-End Roadmap Initiative
- Emergency Management Deployments



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# Environmental Management

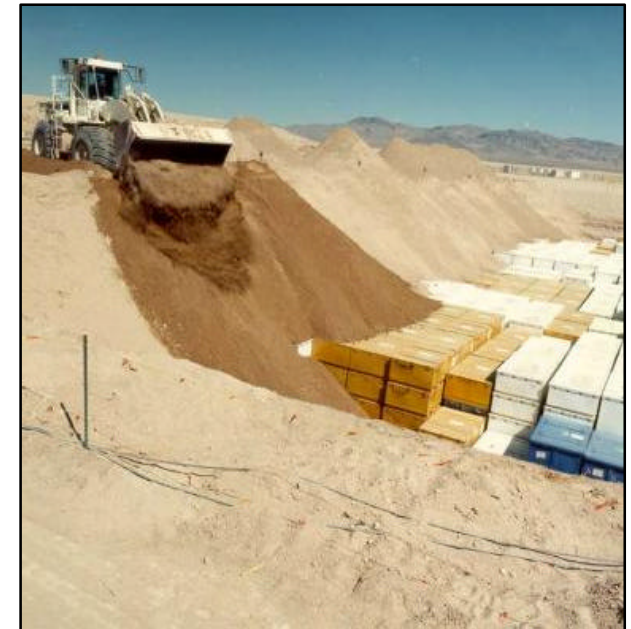


**Develops remediation and restoration technology solutions for site cleanup needs**

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**Manages and remediates waste sites on the Nevada Test Site**



**Manages the disposal of waste generated by DOE operations**



# Defense and Civil Programs



**Supports the Department of Defense weapon system testing and experimentation**



**Provides test and demonstration services for advanced technology systems**



**Supports testing and experimentation of advanced technologies for other agencies.**



**Provides alternate applications for existing technologies**

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## **Operations Offices/Laboratories**

In support of each Mission, Bechtel Nevada maintains operations at locations across the U.S.



# **Top 10 FY2002 Initiatives**

1. Integrated Safety Management: Precursors and Self Assessment
2. Nuclear operations: External assessment of people and processes required
3. Atlas: Move it from LANL to NTS
4. Jasper: Hot operations
5. Reduce cost of doing business: Direct costs, indirect costs, and outsourcing opportunities
6. Site development: Equipment optimization plan & overall NTS aesthetics
7. Human talent: Leadership pipeline and process
8. Fast design build concept: Process and application of process
9. Mission enhancement: NCCT & NN work
10. Test readiness: Plan on what it would take to move to 18 months rather than two to three years

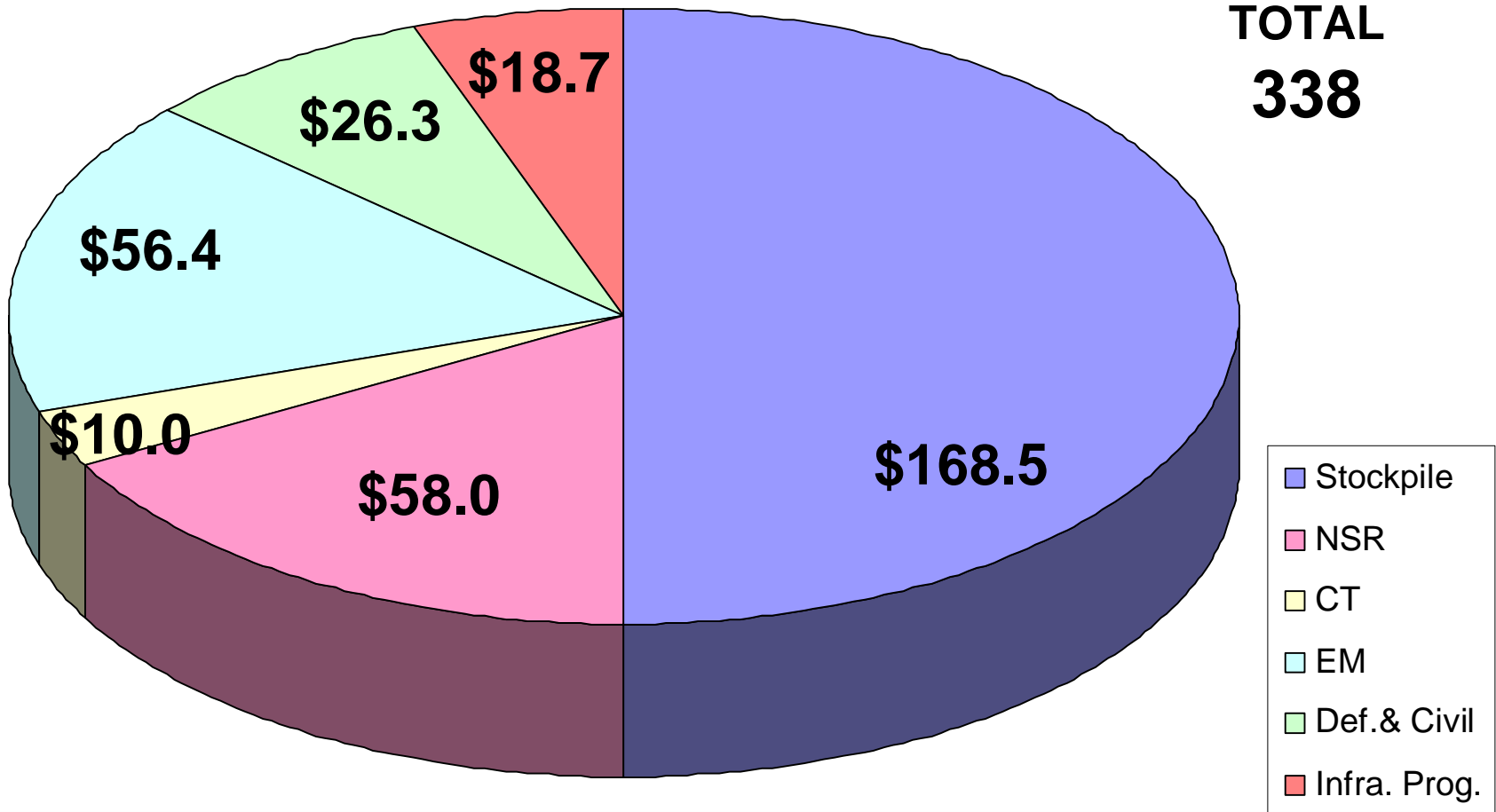
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# Bechtel Nevada Cost Model

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## FY 02 Projected New Year Funding (\$M)

**GRAND  
TOTAL  
338**



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# Breakdown of Current Funding

# of Funding sources	# of Control Authorizations	Total Value (\$000)	Average per Funding source (\$000)	Average Control Authorization (\$000)	% of Total
64	274	265,674	4,151	970	83%
207	250	55,411	268	222	17%
271	524	321,084	1,185	613	100%

# **Background**

- **FY02 Cost Model revisions were made because:**
  - **The FY01 model was too complex**
    - **Difficult to use as a management tool**
    - **Difficult to understand for future work**
  - **Customer dissatisfaction**
  - **Focus on long-term future**
  - **Perception of a “high cost of doing business”**

## **Cost Model Review Consultants Charter**

- ★ **Evaluate BN's cost model configuration**
- ★ **Provide options:**

**Simplify**

**Reduce multipliers**

**Encourage "WFO" opportunities**

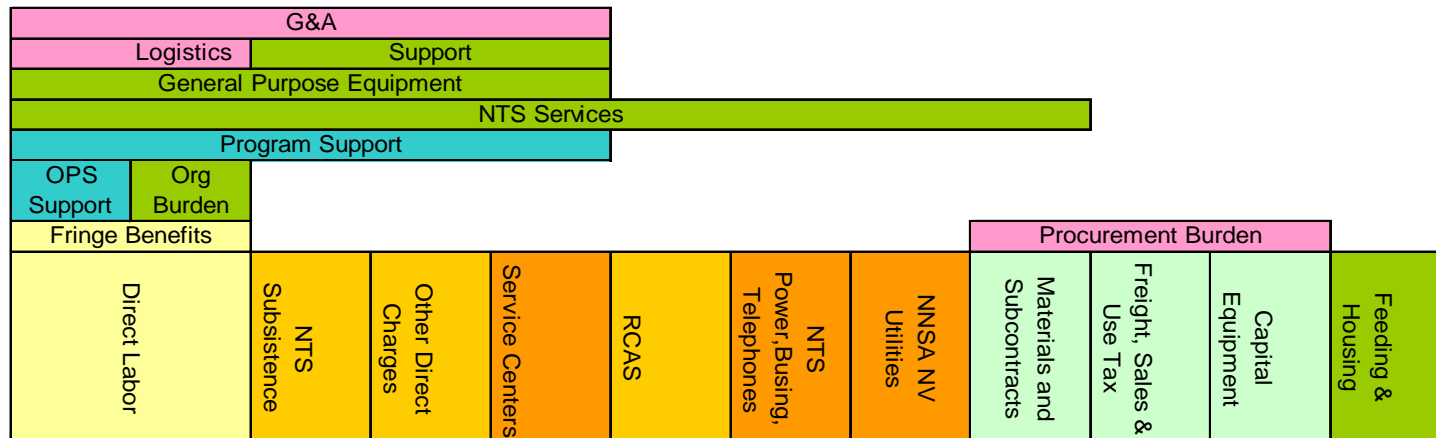
**Improve visibility**

**Cost reduction**

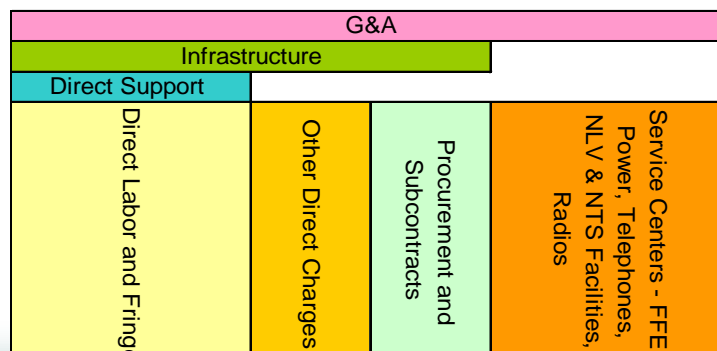


# Bechtel Nevada Cost Model Comparison

## Value Added Base



## Total Cost Input Base



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## Cost Model Review Consultants

	<b>Recommendations</b>			<b>Status</b>
	<b>Reduce Multiplier</b>	<b>Reduce Cost</b>	<b>Improve Management Tool</b>	
★ <b>Projectize Infrastructure</b>	✱	✱		●
★ <b>Offer Marginal Costing</b>	✱	✱	✱	●
★ <b>Combine Fringes With Labor</b>	✱			●
★ <b>Redefine Fee As Direct</b>	✱			●
★ <b>Simplify the Cost Model</b>			✱	●
★ <b>Enhance Clarity and Visibility</b>			✱	●



# **Cost Model Simplification Multiplier Combinations**

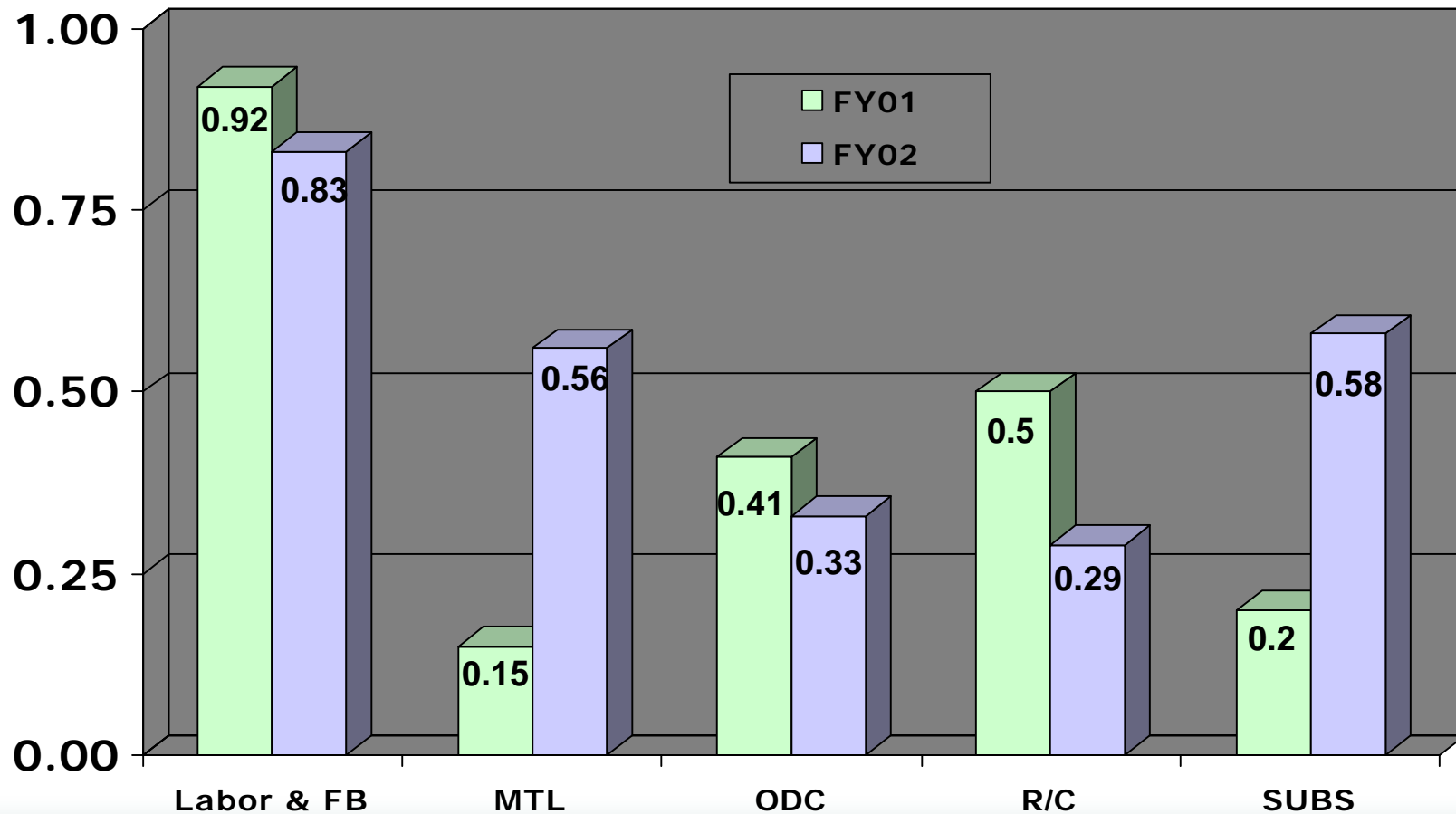
	<b><u>Old</u></b>	<b><u>New</u></b>
<b>Labor &amp; Fringe</b>	<b>64</b>	<b>10</b>
<b>ODC's</b>	<b>8</b>	<b>2</b>
<b>Procurements &amp; Subcontracts</b>	<b>2</b>	<b>4</b>
<b>Recharges</b>	<b><u>8</u></b>	<b><u>1</u></b>
	<b>82</b>	<b>17</b>

# Cost Impact Analysis

## FY02 Multipliers

	<u>Old</u>	<u>New</u>	
	Onsite	Onsite	Offsite
<b>Labor:</b>			
Stockpile Stewardship	2.14	1.99	1.52
National Security Response	2.19	2.26	1.72
Environmental Management	2.18	1.96	1.49
Defense Civil Projects	2.23	1.99	1.52
<b>ODC</b>	1.78	1.78	1.35
<b>Recharges</b>	1.78	1.29	1.29
<b>Procurements, Subs &amp; Equipment</b>	<u>Old</u>	<u>New</u>	<u>Pass-through</u>
Onsite	1.29	1.78	1.03
Offsite	1.03	1.35	1.03

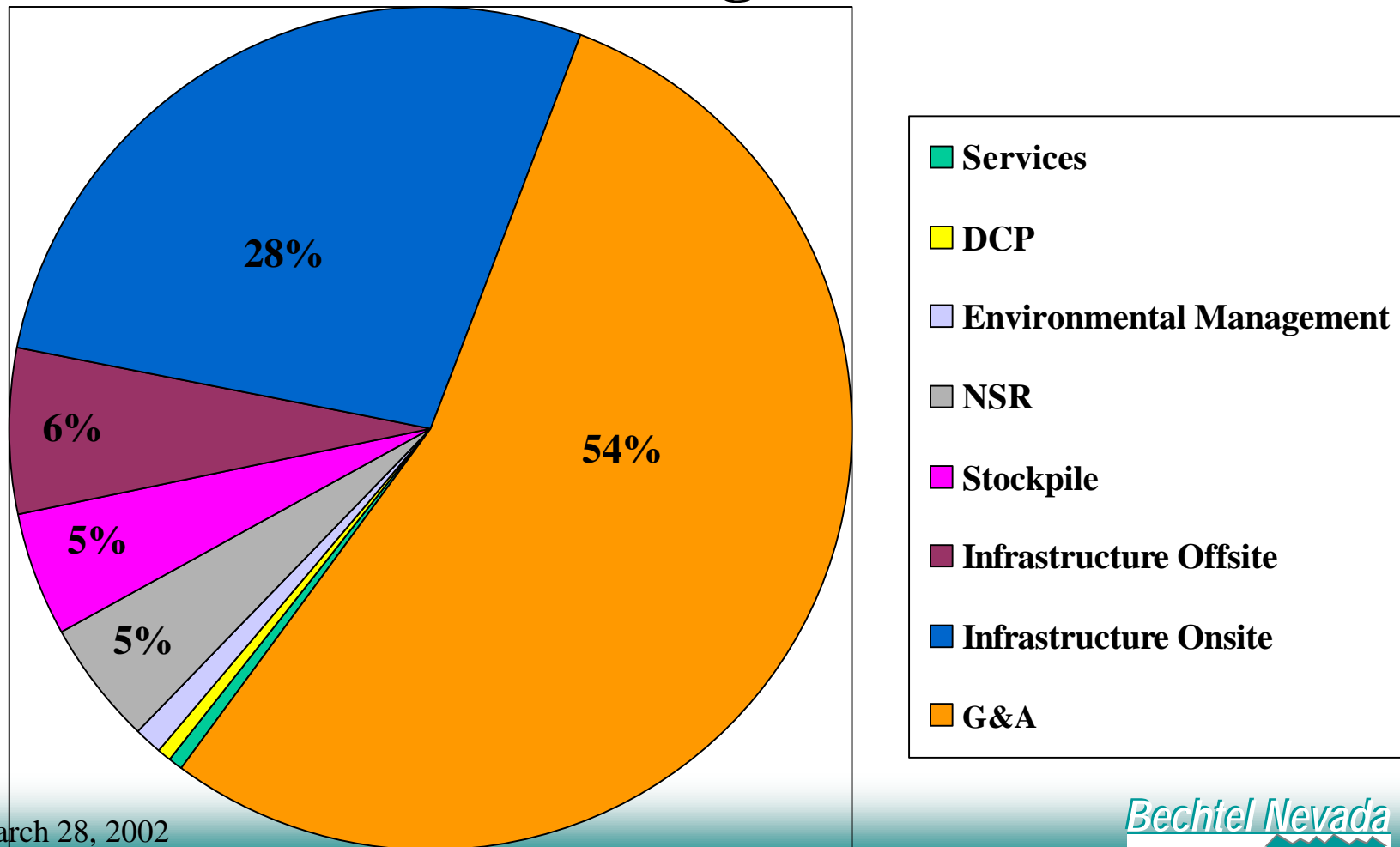
## Burdens to to Prime Ratios



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# FY02 Indirect Pool Expense

## Estimated FY02 Program of \$335 M



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# Lessons Learned

- Plan for adequate lead time to make changes
  - Make changes in time for the budget calls
- Avoid major rate differences at decision points
  - Pass-through procurements
  - Onsite vs. Offsite
- Avoid exceptions
- Don't overburden procurements and ODC's
- Communicate changes and cost impacts early
- Use large pools and bases to mitigate rate fluctuations
- Keep estimating in mind



# Open Discussion Topics

- Total Cost Input vs. Value Added Base
- Operational Service Center
- Direct Distribution
- Populate G&A pools with only G&A activity
- Keep it Simple